

Notes on the distribution and natural history of bird species in the Chocó bioregion of Ecuador

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SUMMARY.—Here I present new information for 14 bird species in the Chocó bioregion of Ecuador. Novel distributional records are presented for eight species, including two globally Endangered (Baudó Guan *Penelope ortoni* and Banded Ground Cuckoo *Neomorphus radiolosus*) and one Vulnerable species (Brown Wood Rail *Aramides wolfi*). At the national level, new data are provided for four Endangered and two Vulnerable species. Additionally, I present natural history data to supplement the previously limited knowledge concerning five species, including the first description of a nest in the wild of Orange-breasted Fruiteater *Pipreola jucuuda*. Of interest is the first known instance of a Dendrocolaptidae (Strong-billed Woodcreeper *Xiphocolaptes promeropirhynchus*) predating a nest of a trochilid (Brown Inca *Coeligena wilsoni*), and the apparent extirpation of a local population of Baudó Guan.

The Chocó bioregion is defined as an area generally restricted to western Colombia and north-west Ecuador. Given high levels of biodiversity and endemism (greater than in any other area in the Americas), this bioregion is of high priority for global conservation and is listed as an Endemic Bird Area (Stattersfield *et al.* 1998). Although Ridgely & Greenfield (2001) summarised a huge body of information on the avifauna of the Ecuadorian part of this bioregion, many gaps remain especially in relation to our knowledge of natural history, species distributions and habitat use. More recently, fresh information has been presented on the distribution (Freile & Chaves 2004, Henry 2005, Álava *et al.* 2007), natural history (Karubian *et al.* 2003, Arcos-Torres & Solano-Ugalde 2007, Solano-Ugalde *et al.* 2010) and status (Freile *et al.* 2003, Jahn *et al.* 2007) of birds in the region, including some of high conservation concern such as Banded Ground Cuckoo *Neomorphus radiolosus* (Solano-Ugalde & Arcos-Torres 2007). While these publications further our understanding of the species in question, they point to the need for further data to support the implementation of sound conservation strategies for the Chocó bioregion.

Here I present novel information on the distribution and natural history of 14 species of Chocó endemics (combining the assessments in Stattersfield *et al.* 1998 and Ridgely & Greenfield 2001). Observations were made during bird surveys and monitoring, and while leading birding trips throughout the region. The following accounts summarise my observations, whilst a summary of the localities visited is presented in Table 1.

Species accounts

BERLEPSCH'S TINAMOU *Crypturellus berlepschi*

An adult was observed at close range (c.4 m) within primary forest at Reserva Mangaloma on 14 February 2007. The wholly sooty black body with a distinctive reddish-orange mandible and tarsi, and striking yellow-orange irides were diagnostic. The bird was also heard vocalising twice during a one-hour period. At least one other record is available from the same reserve in 2007 (R. Jonsson pers. comm.), and a sighting in late 2009 suggests that the species occurs in small numbers in the area. Previous records in Ecuador are mainly from prov. Esmeraldas, with a few from Pichincha. Most known localities are below 300

TABLE 1
Localities studied in north-west Ecuador, 2006–10.

Site	Province	Elevation	Coordinates	Principal habitat / life zone
Humedal de Yalare	Esmeraldas	20 m	01°05'N, 78°50'W	Flooded lowlands
Reserva Canandé	Esmeraldas	500 m	00°43'N, 79°02'W	Foothills and lower subtropics
Bosque Protector Los Cedros	Imbabura	1,200 m	00°18'N, 78°46'W	Lower subtropics
Reserva Mariposas y Guañas	Pichincha	600 m	Unavailable	Foothills and lower subtropics
Reserva Mangaloma	Pichincha	600–900 m	00°05'N, 79°00'W	Foothills and lower subtropics
Reserva Yanacocha	Pichincha	3,200 m	00°10'S, 78°35'W	Upper temperate
Reserva Las Gralarias	Pichincha	2,200 m	00°00'S, 78°44'W	Subtropical montane forest
Reserva Inti Llacta	Pichincha	1,800 m	00°03'N, 78°42'W	Subtropical montane forest
Refugio Paz de las Aves	Pichincha	1,950 m	00°00'N, 78°42'W	Subtropical montane forest
Bosque Protector Mashpi	Pichincha	1,400 m	00°09'N, 78°50'W	Lower subtropics

m, but a specimen was taken at 700 m in the 'Mindó / Milpe' region, although this has been considered controversial because both sites are generally considered to be higher in elevation (Ridgely & Greenfield 2001). However, Milpe gorge to the río Pachijal and nearby Chaltayacu are at the correct elevation and possess appropriate habitat (S. Olmstead pers. comm.). At c.800 m, the Mangaloma record is the highest for the country and one of the most recent for Pichincha, together with unpublished observations from Silanche Bird Sanctuary (G. Buchelli & D. Brinkhuizen pers. comm.) and the Charco Vicente trail, in Cotacachi-Cayapas Reserve (B. Palacios *in litt.* 2011). The species occurs to 500 m in Colombia, with a single record at 900 m from the Anchicayá Valley (Hilty & Brown 1986). In Ecuador it is considered Endangered (Mena-Valenzuela & Jahn 2002).

BAUDÓ GUAN *Penelope ortoni*

During bird surveys at Reserva Mangaloma in 2006–08, at least two pairs of this globally Endangered cracid (BirdLife International 2011) were found, initially by their distinctive vocalisations. However, more recent visits, by reserve personnel and birdwatchers, have failed to find the species. In Ecuador it is considered rare to locally uncommon by Ridgely & Greenfield (2001), who suggested that the species receives no adequate protection in the country. In Pichincha there appear to be no other sites where the species still occurs, and the suggestion that it disappears even in the face of just light hunting pressure (O. Jahn *in* Ridgely & Greenfield 2001) is corroborated by my experience at Mangaloma. The species' conservation in Ecuador is a priority. In Colombia, it is known from only a few localities (Hilty & Brown 1986), and in Ecuador habitat loss and its sensitivity to hunting has rendered the species Endangered (Jahn & Mena-Valenzuela 2002).

BROWN WOOD RAIL *Aramides wolffi*

On 8 December 2007 two were heard vocalising in the Yalare swamp, along the 'Costanera' road from San Lorenzo to Esmeraldas, and at least two were briefly observed thereafter. Again, on 21 February 2008, birds were heard calling and, on 15 March 2008, two pairs were heard interacting and two birds were observed walking across the main road. The Yalare wetlands represent a distinctive and unique habitat restricted to the north-west lowlands of Ecuador, known locally as *guandal* (Freile & Santander 2005). This locality represents a new site for this rare and very local rallid, which occurs at only a few sites in the country (Ridgely & Greenfield 2001, Freile *et al.* 2004, Álava *et al.* 2007, Freile 2008), although there is

also a record from Silanche Bird Sanctuary, Pichincha (B. Palacios *in litt.* 2011). The species is considered Endangered nationally (Hilgert 2002) and Vulnerable globally (BirdLife International 2011).

BANDED GROUND CUCKOO *Neomorphus radiolosus*

I encountered a Banded Ground Cuckoo at Reserva Canandé on 8 January 2008. It ran across the trail 5 m ahead of me, hopped onto a 1 m-high stump, and remained perched for almost one minute, constantly raising and lowering its crest, and cocking and partially spreading its tail. With a single hop, the bird descended to the ground and immediately disappeared in the dense understorey. Within 3–5 minutes, the bird began vocalising for almost 15 minutes (and was perhaps joined by a second bird?). An army ant swarm (*Eciton* sp.) was in the vicinity and was attended by two Plain-brown Woodcreepers *Dendrocincla fuliginosa* and a pair of Immaculate Antbirds *Myrmeciza immaculata*. Although new information concerning the species' breeding biology is available (Karubian *et al.* 2007), since the publication of Ridgely & Greenfield (2001) only one new locality has been documented (Solano-Ugalde & Arcos-Torres 2007), although there is an unpublished record of two at Cerro Dogola, Mache Chindul Reserve (B. Palacios *in litt.* 2011). The species is considered Endangered nationally and globally (Greenfield 2002, BirdLife International 2011).

ROSE-FACED PARROT *Pionopsitta pulchra*

A flock of six was observed around the headquarters at Reserva Los Cedros on 31 December 2009, and during the following days the species was observed consuming *Psidium guajava* (Myrtaceae) fruits. Apparently, the species has been resident at the reserve since at least 1998 (M. Cooper pers. comm.). Additionally, on 3 December 2008, a flock of ten was observed flying over the pass (1,500 m) above La Delicia, en route to the nearby Bosque Protector Mashpi. This parrot's distribution, status and taxonomy were discussed by Ridgely & Greenfield (2011), who knew of no records from prov. Imbabura and none above 1,300 m. However, the species' substantial decline due to deforestation and hunting (P. Mena Valenzuela & O. Jahn *in litt.* 2011) apparently were insufficient to list it as threatened in Ecuador (Ridgely & Greenfield 2001), although it was subsequently treated as Vulnerable (Jahn & Mena-Valenzuela 2002). During informal surveys of illegal pet markets in north-west Pichincha in 2009–10, I observed two cages with juvenile Rose-faced Parrots. Given recent declines in north-west Pichincha (e.g. along the Milpe Road, San Miguel de Los Bancos; pers. obs. 2006–10) and knowledge that the species is captured for the pet trade (an important but previously unknown threat), its conservation status in Ecuador might require reassessment.

INDIGO-CROWNED QUAIL-DOVE *Geotrygon purpurata*

First recorded at Reserva Mangaloma in 2006, where it has regularly been seen since. On 13 August 2008, a pair was seen at Reserva Mariposas y Guañas, in the middle río Pachijal drainage, where a pair has been tamed to eat pieces of banana from the ground since then (M. Muñoz pers. comm.; pers. obs.). Considered rare to uncommon in Ecuador, with just one previously known locality (under modern political divisions) in Pichincha; Simón Bolívar Road (Ridgely & Greenfield 2001). The species' apparent preference for primary forest (*vide* Ridgely & Greenfield 2001) is supported by my observations, which are all from pristine habitat. These new localities, especially Mariposas y Guañas, are potentially good sites to further study the natural history of this elusive species. Hilty & Brown (1986) regarded it as a subspecies of Sapphire Quail-Dove *G. saphirina*, but from an Ecuadorian perspective *G. purpurata* is treated specifically and is ranked as Vulnerable due to its limited range and habitat preferences (Jahn & Mena-Valenzuela 2002).

GORGETED SUNANGEL *Heliangelus strophianus*

During the first week of October 2008, initially on the 7th, and until 20 November, an adult male was present at Reserva Yanacocha, where it visited one of the hummingbird feeders at a forest border along the Inca Ditch trail. Several times it was chased by a territorial Buff-winged Starfrontlet *Coeligena lutetiae*. This record, with an unpublished record from the reserve in 2005 (T. Santander pers. comm.), constitutes a new upper elevation for the species, which was previously known to reach 2,300 m (occasionally 3,000 m) in Ecuador (Ridgely & Greenfield 2001) and 2,800 m in Colombia (Hilty & Brown 1986).

BROWN INCA *Coeligena wilsoni*

On 17 November 2006, at Reserva Las Gralarias, I found an adult feeding two chicks at a mossy nest inside forest, 2 m above ground in a *Cinchona* sp. (Rubiaceae). The nest was revisited on 22 November and the chicks, mainly covered in brown down, weighed 7.5 and 8.1 g, respectively. External nest measurements were 73 mm wide × 65 mm tall, with a 100 mm 'tail' of hanging moss, and the cup was 35 mm wide × 25 mm deep. On 1 December I witnessed the chicks' predation by two Strong-billed Woodcreepers *Xiphocolaptes promeropirhynchus* moving through the understorey. Approaching the nest I heard contact calls between the woodcreepers. Waiting 8 m distant, I saw the first individual perch <10 cm from the cup and immediately grasp a chick and fly off to a nearby perch where it gulped its prey whole. Subsequently, the second bird approached the nest and took the other chick, which it consumed while perched nearby. An adult *C. wilsoni* appeared and emitted an incessant high-pitched, short, alarm note for c.1 minute, then left and did not return during the next ten minutes. There is a single breeding record from Ecuador (Greeney & Nunnery 2006) and, based on Schuchmann (1999), this is the first documented instance of predation of a hummingbird by a Dendrocolaptidae.

PALE-MANDIBLED ARACARI *Pteroglossus erythropygius*

A regular seasonal visitor to Reserva Inti Llacta (IL), where mostly seen during the less wet part of the year (June–September) in 2006–09. A similar pattern is observed at nearby Refugio Paz de las Aves, at 1,950 m (A. Paz pers. comm.), with a single record at 2,200 m above Bellavista (B. Palacios *in litt.* 2011). Recently recorded at IL in February 2009, when a juvenile was heard in second growth near the reserve headquarters. Although the natural history of the species was summarised by Berg (2001) there is limited information from the foothills and lower subtropical forest in Pichincha (Ridgely & Greenfield 2001); my records of juveniles with adults are in January–May. The species' altitudinal range was previously considered to reach 1,500 m (Ridgely & Greenfield 2001). Nationally, Pale-mandibled Aracari is considered Vulnerable (Jahn & Mena-Valenzuela 2002).

CLUB-WINGED MANAKIN *Machaeropterus deliciosus*

On 26 June 2008 a female-plumaged bird was mist-netted at Reserva Inti Llacta (IL). A week later the mechanical sound diagnostic of the species was heard on the same trail as the initial capture (in the headwaters of the río Pachijal), and since then there have been sporadic records suggesting year-round presence. Ridgely & Greenfield (2001) suggested that the species might be a seasonal altitudinal migrant. My records might reflect post-breeding dispersal as, at least in part of its range, the species breeds during the first half of the year (H. F. Greeney pers. comm.), and they also constitute a new max. elevation in Ecuador, where Club-winged Manakin was previously known to 1,500 m, whereas in Colombia the species regularly occurs to 1,900 m (Hilty & Brown 1986).

ORANGE-BREASTED FRUITEATER *Pipreola jucunda*

On 12 November 2008 A. Paz informed me of an active nest at Refugio Paz de las Aves. It was visited on 18 November and video-taped for three hours, but thereafter the nest was found abandoned. The nest was 4.5 m above the ground in a 7 m-tall *Palicourea* sp. (Rubiaceae) tree in semi-wooded pasture with nearby forest. Inside there was a dead chick weighing 14.5 g, mostly unfeathered with several conspicuous botfly larvae (Oestridae), and which measured: exposed culmen = 9.6 mm, nares to tip = 4.1 mm, tarsus = 17.3 mm. The bill and tarsus showed only hints of reddish, the gape yellowish olive, and the eyes were closed. The nest was cup shaped, measuring inside 81.3 mm (width) × 21.2 mm (depth), and externally 122.9 mm (width) × 38.1 mm (depth), with a tail of hanging moss of 67.4 mm. Externally the nest was composed of dead and live mosses, whilst internally the materials were bound to a network of interwoven fine twigs and fern fibres. Additionally, a pair with nesting material was observed briefly in old second growth at Reserva Inti Llacta on 13 December 2009. The species' natural history was briefly described by Samper (1992) and a pair with nesting material was observed in April in south-west Colombia (Strewe 2001). My record represents the first breeding data for the species in the wild, although nesting in captivity was described by Lint & Dolan (1966).

BLACK SOLITAIRE *Entomodestes coracinus*

On 3 December 2008 one was heard along the La Magusa Road in the surroundings of Bosque Protector Mashpi. Since then, I have encountered the species on eight of 15 visits to appropriate habitat (heavy moss forest), with at least one presumed territory, and have recorded max. 3 adults. In Ecuador the species is rare to uncommon and inconspicuous (Ridgely & Greenfield 2001), which together with habitat loss and fragmentation led to its classification as Near Threatened (Jácome 2002). Although the last-named author mentioned six localities where the species is apparently protected in Ecuador, none of these seems to possess an easy accessible resident population as at Mashpi.

YELLOW-COLLARED CHLOROPHONIA *Chlorophonia flavirostris*

I first recorded this species on 14 December 2007 at Reserva Inti Llacta, when I witnessed a pair vocalising and acrobatically feeding at a *Miconia* sp. (Melastomataceae) shrub in forest edge. Additionally, on 19 January 2009, at Refugio Paz de las Aves, a male was feeding at an Araliaceae tree in primary forest. Regarded as rare to locally common in the foothills and lower subtropics, albeit only as far south as Pichincha in Ecuador, where it occurs in small numbers and only seasonally (December–April; M. Lysinger *in litt.* 2001; Ridgely & Greenfield 2001). My records increase the species' the altitudinal range to 1,950 m, although in Colombia it occurs regularly to 1,900 m in the Anchicayá and Digua drainages, in dpto. Valle (Hilty & Brown 1986).

MOSS-BACKED TANAGER *Bangsia edwardsi*

On 14 February 2006, I observed an apparent juvenile at Reserva Inti Llacta (IL), the first record for the reserve. It was aged by the pinkish gape and overall subdued coloration. On 26 June 2010 a family party was in the buffer zone of Bosque Protector Mashpi, the juvenile being fed an unidentified insect by one of the adults after incessant begging. The same day a second family party was seen, but in this instance one of two juveniles was observed carrying moss to a nearby clump 6 m high in a tree, where a nest was apparently being constructed. The IL record constitutes a new altitudinal limit in Ecuador, with most previous records at 500–1,100 m, other than a record at 1,700 m in prov. Carchi (Ridgely & Greenfield 2001) and a single recent record at 1,650 m in Pichincha (Vogt 2007). The species is especially abundant in the area around Bosque Protector Mashpi. Besides a nest described

from Esmeraldas (Robbins & Glenn 1988), nothing concerning the species' breeding appears to have been published, making my records the first breeding data for Pichincha and the first confirmation of helpers at the nest in this tanager (Isler & Isler 1999).

Most of my records were made in reserves within one of Ecuador's most-visited regions by ornithologists, the Mindo area. Although it has received attention from national and international NGOs, as well as independent researchers (Kirwan & Marlow 1996), the data presented here prove how much remains to be discovered concerning the avifauna of this megadiverse area that includes three Important Bird Areas (Freile & Santander 2005). It is interesting to note that, for six of the 14 species mentioned here, an altitudinal range extension is reported, which is especially important given the severe loss of lowland forest in western Ecuador (Dodson & Gentry 1991, Freile & Santander 2005). Natural history studies and better data on distributions of species restricted to certain biogeographic regions remain a priority in Ecuador (Freile *et al.* 2006, Freile & Rodas 2008) yet, controversially, such studies are generally in decline (Beehler 2010). Given the conservation priority of the Chocó Endemic Bird Area, those observers and researchers with unpublished data are encouraged to share them via published and unpublished media. Exploring data-sharing initiatives wherein both scientific and citizen science participants can plan more effective conservation strategies should be a relatively easily achievable common goal for the future. For instance, around Mashpi, a proposal to create a new Important Bird Area is being evaluated, together with a watershed conservation initiative promoted by local people and Quito municipality. Lastly, in agreement with Freile & Rodas (2008), given evident declines for several species, updating the Ecuadorian Red Data Book for birds should be a priority:

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